

Trotec Laser GmbH

4600 Wels

Date printed 05.02.2016, Revision 05.02.2016

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SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1 Product identifier

DuraBlack

1.2 Relevant identified uses of the substance or mixture and uses advised against
1.2.1 Relevant uses

Laser engraved article

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company	Trotec Laser GmbH Linzer Str. 156 4600 Wels / AUSTRIA Phone +43 (0)72 42 239-7777 Fax +43 (0) 72 42 239-7380 Homepage www.troteclaser.com E-mail trotec@troteclaser.com
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Address enquiries to

Technical information	trotec@troteclaser.com
Safety Data Sheet	sdb@chemiebuero.de

1.4 Emergency telephone number

Company	+43 (0)72 42 239-7777
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SECTION 2: Hazards identification
2.1 Classification of the substance or mixture

No classification.

2.2 Label elements

This product is an article and therefore it does not require labelling according to EC directives [REACH/CLP].

2.3 Other hazards

Human health dangers	For thermal decomposition to high temperature are formed irritating smoke.
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SECTION 3: Composition / Information on ingredients
Product-type:

The product is an article.

Comment on component parts
No dangerous components.
Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.

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SECTION 4: First aid measures**4.1 Description of first aid measures**

General information	In the event of symptoms seek medical treatment.
Inhalation	After inhalation of vapours of product which can set free by thermal processing: Remove the victim into fresh air and keep him calm. In the event of symptoms seek medical treatment.
Skin contact	In case of contact with skin wash off with warm water. Consult a doctor if skin irritation persists. In case of burning: After contact with molten product cool quickly with cold water or sterile salt solution and protect with gauze.
Eye contact	If eye irritation persists: Get medical advice/attention.
Ingestion	not applicable

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures**5.1 Extinguishing media**

Suitable extinguishing media	Product itself is non-combustible. Fire extinguishing method of surrounding areas must be considered.
Extinguishing media that must not be used	Full water jet.

5.2 Special hazards arising from the substance or mixture

In the event of fire the following can be released:

Metal oxides.
Carbon monoxide (CO)
Carbon dioxide (CO₂)

5.3 Advice for firefighters

Use self-contained breathing apparatus.

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation.

Wear suitable protective equipment. For personal protection see SECTION 8.

6.2 Environmental precautions

No special measures necessary.

6.3 Methods and material for containment and cleaning up

Take up mechanically.

6.4 Reference to other sections

See SECTION 8+13

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Small quantities of formaldehyde were detected during laser engraving of DuraBlack. Under normal laser operating conditions, the user's exposure was below the OSHA's action value of 0.5 ppm.

During thermal processing vacuuming at processing machines is necessary.

The normal safety precautions for handling of molten, heated products must be observed.

Wash hands before breaks and after work.

Do not eat, drink, smoke or take drugs at work.

7.2 Conditions for safe storage, including any incompatibilities

Do not store together with acids and alkalies.

Store in a dry place.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

not applicable

8.2 Exposure controls

Additional advice on system design Use suitable discharges or exhaust ventilation if heat treatment is intended. Protection adapted to the manipulation of the fused product (danger of burning).

Eye protection In the case of thermal processing:
Tightly fitting goggles. (EN 166:2001)

Hand protection Gloves (heat-resistant).
The details concerned are recommendations. Please contact the glove supplier for further information.

Skin protection Protective clothing.

Other Avoid contact with eyes and skin.
Do not inhale smokes formed during heat treatment.

Respiratory protection Respiratory protection in the case of thermal processing.
Short term: filter apparatus, combination filter A-P2. (DIN EN 14387)

Thermal hazards yes

Delimitation and monitoring of the environmental exposition Comply with applicable environmental regulations limiting discharge to air, water and soil.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	Metal plates solid in different forms
Color	Aluminium sheet with a matt-black coating on one side.
Odor	odourless
Odour threshold	No information available.
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	not applicable
Flash point [°C]	not applicable
Flammability (solid, gas) [°C]	Not highly flammable.
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	not applicable
Density [g/ml]	No information available.
Bulk density [kg/m³]	not applicable
Solubility in water	insoluble
Partition coefficient [n-octanol/water]	not applicable
Viscosity	not applicable
Relative vapour density determined in air	not applicable
Evaporation speed	not applicable
Melting point [°C]	No information available.
Autoignition temperature [°C]	not self-igniting
Decomposition temperature [°C]	No information available.

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with strong acids and alkalies.

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials

See SECTION 10.3.

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10.6 Hazardous decomposition products

In the case of heating following (decomposition) products may occur:

Oxide of carbon (COx)

Formaldehyde.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

Serious eye damage/irritation	Based on the available information, the classification criteria are not fulfilled.
Skin corrosion/irritation	Based on the available information, the classification criteria are not fulfilled.
Respiratory or skin sensitisation	Based on the available information, the classification criteria are not fulfilled.
Specific target organ toxicity — single exposure	Based on the available information, the classification criteria are not fulfilled.
Specific target organ toxicity — repeated exposure	Based on the available information, the classification criteria are not fulfilled.
Mutagenicity	Based on the available information, the classification criteria are not fulfilled.
Reproduction toxicity	Based on the available information, the classification criteria are not fulfilled.
Carcinogenicity	Based on the available information, the classification criteria are not fulfilled.
Aspiration hazard	Based on the available information, the classification criteria are not fulfilled.
General remarks	Risk of mechanical irritation. May cause irritation of eye (vapours/fumes). May cause respiratory tract irritation (vapours/fumes). Toxicological data of complete product are not available.

SECTION 12: Ecological information**12.1 Toxicity****12.2 Persistence and degradability**

Behaviour in environment compartments	No information available.
Behaviour in sewage plant	not applicable
Biological degradability	The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

The product is insoluble in water.

Ecotoxicological data are not available.

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SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Disposal in an incineration plant in accordance with the regulations of the local authorities.

Waste no. (recommended) 060499
170402

Contaminated packaging

Contaminated packing should be disposed of as product waste.
Uncontaminated packaging may be taken for recycling.

Waste no. (recommended) 150102
150101

SECTION 14: Transport information**14.1 UN number**

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.2 UN proper shipping name

Transport by land according to ADR/RID NO DANGEROUS GOODS

Inland navigation (ADN) NO DANGEROUS GOODS

Marine transport in accordance with IMDG NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA NOT CLASSIFIED AS "DANGEROUS GOODS"

14.3 Transport hazard class(es)

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

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14.4 Packing group

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.5 Environmental hazards

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

EEC-REGULATIONS 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC; (EU) 2015/830

TRANSPORT-REGULATIONS DOT-Classification, ADR (2015); IMDG-Code (2015, 37. Amdt.); IATA-DGR (2016).

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4

- Observe employment restrictions for people none

- VOC (1999/13/CE) 0 %

15.2 Chemical safety assessment

not applicable

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SECTION 16: Other information**16.1 Abbreviations and acronyms:**

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
 CAS = Chemical Abstracts Service
 CLP = Classification, Labelling and Packaging
 DMEL = Derived Minimum Effect Level
 DNEL = Derived No Effect Level
 EC50 = Median effective concentration
 ECB = European Chemicals Bureau
 EEC = European Economic Community
 EINECS = European Inventory of Existing Commercial Chemical Substances
 ELINCS = European List of Notified Chemical Substances
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IC50 = Inhibition concentration, 50%
 IMDG = International Maritime Code for Dangerous Goods
 IUCLID = International Uniform Chemical Information Database
 LC50 = Lethal concentration, 50%
 LD50 = Median lethal dose
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships
 PBT = Persistent, Bioaccumulative and Toxic substance
 PNEC = Predicted No-Effect Concentration
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 TLV@TWA = Threshold limit value – time-weighted average
 TLV@STEL = Threshold limit value – short-time exposure limit
 VOC = Volatile Organic Compounds
 vPvB = very Persistent and very Bioaccumulative

16.2 Other information

Classification procedure

Modified position

none



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